

REMARKS

Claims 1, 3, 5-6 and 8-17 are pending in this application. Claims 9-17 are currently withdrawn. By this Amendment, claim 1 is amended to incorporate the subject matter of original claims 2, 4 and 7. The amendment to claim 1 is supported by page 17, line 8 to page 22, line 9 and Figure 4 of the specification. Claims 3, 5, 6 and 8 are amended to update claim dependency. Claims 2, 4 and 7 are canceled. No new matter is added by this Amendment.

I. Rejections Under 35 U.S.C. §103(a)**A. Claims 1-5 and 7-8**

Claims 1-5 and 7-8 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP 2000-067894 ("Meltser") in view of U.S. Patent Application Pub. No. 2004/0067398 ("Watanabe") and in further view of U.S. Patent No. 6,461,751 ("Boehm"). Applicants respectfully traverse this rejection.

The Patent Office alleges that Meltser describes a fuel cell system comprising a light emitter in an opt-isolator (i.e., a light emitting diode (LED)) as a "voltage detection means" to monitor the voltage of the fuel cell by (1) issuing a "warning when an abnormal condition occurs" or (2) emitting light from the opt-isolator if the voltage is sufficient. See Office Action, page 3 (citing Meltser, the Abstract).

The Patent Office thus introduces Watanabe as allegedly describing this feature. Specifically, the Patent Office alleges that Watanabe describes a hydrogen delivery system for "storing, displaying, and transmitting" information regarding the residual amount of fuel in the a fuel cell. See Office Action, page 4 (citing Watanabe, paragraph [0018]). The Patent Office further alleges that Boehm describes a fuel cell comprising an oxidizing agent concentration detection means that monitors the oxidizing agent concentration to reduce parasitic power consumption and alerts (i.e., a warning signal) the operator when the

oxidizing agent concentration is low. See Office Action, page 4 (citing Boehm, col. 14, line 36 to col. 15, line 6 and Figure 4).

Applicants submit that none of the cited references describe the judgment means that performs the actions as recited in amended claim 1. Specifically, if the judgment means judges that the voltage is greater than a specified voltage reference value, the display means displays that the state of the fuel cell is normal (i.e., if $V_{\text{FuelCell}} > V_{\text{REF}}$, display shows that fuel cell is normal) and the judgment means ceases judging.

However, if the judgment means judges that the voltage is less than the specified voltage reference value, the judgment means proceeds to further judge the residual amount of the fuel detected by the residual fuel detection means (i.e., if $V_{\text{FuelCell}} < V_{\text{REF}}$, judgment means proceeds to determine fuel amount in fuel cell). If the judgment means judges that the residual fuel amount is smaller than a specified fuel reference value, the display means displays that the residual fuel amount in the fuel cell is insufficient (i.e., $FA_{\text{RES}} < FA_{\text{REF}}$, the display outputs that the fuel cell is insufficient) and the judgment means ceases judging.

However, if the judgment means judges that the residual fuel amount is greater than the specified reference fuel value, the judgment means proceeds to further judge the oxidizing agent concentration detected by the oxidizing agent concentration detection means (i.e., if $FA_{\text{RES}} > FA_{\text{REF}}$, judgment means proceeds to determine the oxidizing agent concentration in the fuel cell). If the judgment means judges that the oxidizing agent concentration is less than a specified oxidizing agent concentration value, the display means displays that the oxidizing agent is insufficient (i.e., $OAC < OAC_{\text{REF}}$, the display outputs that fuel cell is insufficient) and the judgment means ceases judging. However, if the judgment means judges that the oxidizing agent concentration is greater than the specified oxidizing agent concentration value, the display means displays that the state of the fuel cell is abnormal (i.e., $OAC > OAC_{\text{REF}}$, the display outputs that fuel cell is abnormal).

In other words, the judgment means described in claim 1 is integrated and makes determinations on the basis of the detected information provided by the individual detection means (i.e., voltage detection means, fuel cell detection means and oxidizing agent detection means) in a specified order to provide various possible display results. Meltser, Watanabe or Miyamoto, alone or in combination, would not have provided one of ordinary skill in the art with any reason or rationale to have combined the subject matter described therein 1 to form the judgment means recited in claim 1. Combining the cited references in the manner proposed by the Patent Office would have merely produced a fuel cell with (1) individual detection means and (2) separate judgment means operating individually, and would not have led one to a judgment means that is integrated and considers the various detected results in the manner specified in claim 1.

Withdrawal of the rejection is requested.

B. Claims 6-8

Claims 6-8 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Meltser in view of Watanabe, in further view of Boehm and still in further view of U.S. Patent No. 6,002,888 ("Miyamoto")*. Applicants respectfully traverse this rejection.

For the reasons described, Meltser, Watanabe and Boehm alone or in combination would not have provided one of ordinary skill with any reason or rationale to have combined the subject matter described in each reference to form a fuel cell that includes the judgment means of claim 1. Miyamoto does not remedy the deficiencies of Meltser, Watanabe and Boehm in this regard. As Miyamoto does not describe the judgment means recited in claim 1, Miyamoto, alone or in combination with Meltser, Watanabe and Boehm, would not have

* Applicants respectfully point out that the Office Action mistakenly refers to "Meltser" instead of "Miyamoto" in summarizing the teachings of Miyamoto. See Office Action, page 5.

provided one with any reason or rationale to have combined the subject matter of the references to have formed a fuel cell that includes the judgment means of claim 1.

Withdrawal of the rejection is requested.

C. Conclusion

In view of the foregoing amendments and arguments, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections.

II. Rejoinder

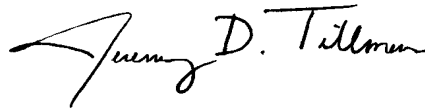
In view of the foregoing amendments and arguments, Applicants respectfully request that upon allowance of claims 1, 3, 5-6 and 8, claims 9-17 be rejoined with the present application and similarly allowed.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 3, 5-6 and 8-17 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Date: December 30, 2008

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